In the United States Circuit Court of Appeals

For the Ninth Circuit

COLUMBIA and NEHALEM RIVER RAILROAD COMPANY, a corporation, and A. S. KERRY,

Appellants,

US.

ELBERT G. CHANDLER and NORTHWESTERN EQUIPMENT, COMPANY, a corporation,

Appellees.

Appellants' Brief

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F. D. Monckton, Clerk,

By...., Deputy.

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STATEMENT OF FACTS.

This is a suit brought by Elbert G. Chandler and the Northwestern Equipment Company against the Columbia & Nehalem River Railroad and A. S. Kerry to restrain an alleged infringement of United States patent No. 1,140,875, issued to Chandler May 25, 1915, and to recover damages. The appeal is from a decree sustaining the validity of the patent, enjoining the appellants from using certain logging trucks manufactured

and sold to them by the Seattle Car & Foundry Company, and awarding the appellees damages in the sum of \$660.

The bill of complaint is in the usual form in such cases, alleging infringement through unwarranted use of certain logging trucks. The patent appears as Plaintiff's Exhibit "1", between pages 44 and 47 of the Transcript of Record. It relates to detached logging trucks, which are to be distinguished from ordinary flat cars, and from connected logging trucks, by the fact that in the flat cars and connected or skeleton trucks the two sets of wheels which support the car or truck are connected by the car body or a permanent framework, while in the detached trucks there is no such permanent connection, the trucks being used in pairs and held together when loaded by the logs constituting the load, and being coupled together when hauled empty. Each detached truck therefore requires a coupling apparatus at either end.

Detached logging trucks in a great variety of forms have been in common use for many years. The patentable feature claimed by Chandler is the idea of having the draw-head or coupling device lower on one end of the truck than on the other. In his specifications he recites that it is common to haul on these detached trucks logs as much as ninety feet in length, and that the weight of these long logs causes them to sag in the middle, so as to strike the inner draw-bars of the trucks, thereby causing derailments and other troubles. His claims are stated as follows:

"What I claim and desire to secure by Letters Patent is—

- 1. A pair of logging trucks having at their outer ends draw-bars at standard height, and having at their inner ends, draw-bars arranged below standard height, whereby to give clearance for sagging logs thereon, and at the same time being adapted to be coupled to each other, when said trucks are brought together.
- 2. A logging truck having a log supporting bunk thereon, and provided at one end with ocupling means at substantially standard height, and at its other end with coupling means considerably below standard height, substantially as and for the purpose indicated.
- 3. In combination two logging trucks, each provided with log supporting means, and each having at its outer ends coupling means positioned at substantially standard height, whereby to be coupled to standard equipment, and each having at its inner end coupling means positioned below standard height, whereby to give clearance, and adapted to be coupled together.
- 4. A logging truck having a log bunk pivotally mounted thereupon, a draw-bar at one end mounted at standard height, and adapted to be coupled to standard railroad equipment, and a draw-bar at the opposite end of said truck below the top of the frame thereof, and below standard height, to give clearance forwardly of the log bunk, substantially as, and for the purpose described."

The appellants admit the use of certain detached logging trucks purchased from the Scattle Car & Foundry Company, having one draw-bar higher than the other, and defend on several grounds, which may be stated briefly as follows: that there is no invention or patentable novelty in the mere idea or device of lowering one draw-bar of a truck by well-known mechanical processes, and that Chandler's patent rests wholly upon that bare idea, there being no claim for any novel or peculiar method by which the result is to be accomplished; that this idea had been anticipated by numerous familiar devices and adjustments in logging equipment, railway cars, and machines and vehicles in common use, of which many examples are given in the answer and evidence; and that this idea did not originate with Chandler, and that he was not the true or original inventor, but that it was suggested and explained to him by one of his customers.

A trial on the merits resulted in the decree above mentioned.

SPECIFICATION OF ERRORS.

The errors claimed go to the entire scope of the decree, the appellants claiming that the District Cours should have held the Chandler patent void for want of invention or patentable novelty, and that the other objections to its validity mentioned above should have been sustained. The errors assigned state the position of appellants more formally as follows (Transcript of Record, pp. 36 to 38):

- "1. That the United States District Court for the District of Oregon erred in holding that the letters patent of the United States, granted on May 25, 1915, to the plaintiff, Elbert G. Chandler, being patent No. 1,140,875, and being the letters patent sued on herein, are good and valid in law.
- 2. The said Court erred in holding that the pretended improvements claimed in and by the said patent or any of them were inventions when produced by the said Elbert G. Chandler.
- 3. The said Court erred in holding that any of the pretended improvements claimed in or covered by the said patent was possessed of patentable novelty or included, or involved, or showed any patentable novelty or invention.
- 4. The said Court erred in failing to find and hold that the pretended improvements embraced in and claimed under the said patent were anticipated by the several patents set forth in the answer of the defendants and offered in evidence at the trial of this cause.
- 5. The said Court erred in failing to find and hold that the said pretended improvements consisted wholly of ideas, expedients and adaptations which were well and commonly known and in general public use in numerous cars, or trucks and other devices for many years prior to the alleged invention represented by the said patent.
- 6. The said Court erred in holding that the said Elbert G. Chandler was the original and first inventor of the alleged improvements described in said patent.

- 7. The said Court erred in holding that said patent is infringed by the logging trucks purchased by the defendants from the Seattle Car & Foundry Company and which are being used by the defendants.
- 8. The Court erred in holding and decreeing that the defendants and each of them and their agents and representatives be enjoined from any further construction, sale or use in any manner of logging trucks having the draw-head at standard height and the other draw-head substantially below standard height, and in holding and decreeing that the defendants be enjoined from the further use of the twenty sets of logging trucks so purchased from the Seattle Car & Foundry Company.
- 9. The said Court erred in awarding plaintiffs damages in the amount of six hundred and sixty dollars (\$660) or in any sum or the costs of the proceedings.
- 10. The said Court erred in failing to decree that the complaint of the plaintiffs be dismissed and in failing to award defendants judgment for their costs and disbursements."

ARGUMENT.

At the time this alleged invention was made, detached logging trucks of various types had been in common use for many years. Differing in details of construction, they had certain features which from the inherent necessities of the case were essentially similar. These were: first, a framework supported on the axles of the wheels and adapted to the carrying of heavy

loads; second, a log support or "bunk," placed at convenient height on this framework, and arranged for the holding of logs in transit, with devices for releasing the logs for unloading; third, coupling means at one end of each such truck, for the coupling of loaded pairs of trucks in trains; and fourth, coupling means at the other end of each truck, for the purpose of coupling empty trucks in trains.

It is self-evident that these detached trucks must be used in pairs or not at all, and that coupling devices must be provided at the outer ends of each co-operating pair of trucks, in order that the loaded pairs may be fastened together and to other equipment in trains, and that empty trucks must be coupled together at their inner ends by some sort of device in order that they may be hauled in trains. These are not ideas evolved or discovered by Chandler, but conditions inherent in the business, and open to the most casual observation.

It is equally plain that the problem of affording clearance between a sagging log and the inner draw-head of a truck, regarded abstractly, without reference to mechanical difficulties of construction, is to be solved according to the simplest and most obvious mathematical principles. It is a question of relative height between the log-supporting bunk and the draw-head, and distance of the draw-head from the bunk. If a sagging log strikes a draw-head which is a given distance below the bunk, and extends a given distance before or behind the bunk, the nature of the case admits of two possible solutions, as will readily be seen by anyone. The

elevation of the bunk above the draw-bar can be increased, either by raising the bunk or by lowering the draw-bar; or the draw-bar can be shortened, so that it will not extend to a point where the sagging of the log will be sufficient to reach it. These facts require neither inventive genius nor mechanical skill for their full perception and understanding.

Chandler claims that he invented or discovered the idea of affording this clearance by lowering one drawbar of each truck, leaving the log bunk and the other draw-bar undisturbed. He admits that the desired result had been accomplished by others through the use of higher bunks, or of lower draw-bars at both ends of the truck, or shorter draw-bars, but claims invention and patentable novelty for the idea of lowering only one draw-bar of each truck. It is important to observe that he makes no claim to any particular method by which this lowering is to be accomplished, nor to any readjustment of other parts or special mode of construction by which the lowered draw-bar is to be made to perform its function. He rests his claim upon the bare idea of having one draw-bar lower than the other. It is true that he surrounds this idea with recitals as to its purpose and explanations as to how it will work in practice, but, as we shall show later, these recitals and explanations add nothing to the primary device, which is simply the lowering of the inner draw-bar of a detached logging truck in order to prevent this draw-bar from striking against sagging logs. The principal question in this case is whether or not that idea is patentable. We believe the question can be approached best by considering the similar ideas and devices in prior use which are shown by the evidence or are matters of common knowledge, bearing in mind those simple and obvious features of the case already mentioned.

Defendant's Exhibit "C" (Transcript of Record, pp. 75-77) shows a patent issued to G. Komarek November 14, 1911. The specifications, lines 10-14, show that the logging truck exhibited was intended especially for the handling of long logs. Lines 86-91, and claims 2 and 4, show a deliberate and intentional raising of the outer draft beam of each truck to a higher plane than the side sill, and a corresponding raising of the outer end sill to a higher plane than the inner end sill. In lines 89-91, it is said that "the intermediate portion of the front end sill C is inclined upwardly so as to provide for this arrangement of the draft beams."

This feature of the Komarek truck is made plain by the illustrations, and especially by Figure 2. The elevation of the front or outer end of the truck above the rear or inner end, and the corresponding elevation of the front or outer draw-bar, are shown clearly. Reference to the Magor patent, Exhibit "B," pp. 71-73 of the Transcript of Record, will explain the relative position of the parts. Figure 5 of the Magor patent is a detached logging truck having the coupling devices at both ends shown. Attention is called to the relative height of the wheels, the frame of the car, and the coupling devices; also to the fact that the couplers at the two ends of the truck are different, the front or outer coupler making the connection at the extreme end of the

draw-head, while the rear or inner coupler connects at the point "V," materially closer to the bunk. This shows conclusively (if any such showing is necessary) that Chandler did not originate the idea of logging trucks specially constructed to be used in pairs.

Turning now to the Komarek patent, Figure 2, we find the same relative arrangement of parts, except that the front coupler is raised substantially, and the rear coupler is not shown. Figure 3 shows the corresponding raising of the front end sill.

Comparing the Komarek patent with the Chandler device (Transcript, pp. 45-47), we find a striking similarity of general features and arrangement of parts. The only essential difference having any bearing upon this case is that Komarek does not show his inner coupler. It is clear that if an inner coupler were attached to the Komarek truck at the height of the inner frame, in the customary manner, we should have the Chandler idea exemplified to the last detail. Does the failure of Komarek to show an inner draw-bar constitute an essential difference? In other words, does Chandler display inventive genius when he attaches an inner draw-bar to the Komarek truck, at the height of the inner frame, and then explains that his trucks are to be used in pairs?

It is obvious that the Magor trucks and the Komarek trucks must be used in pairs. Magor provides inner coupling devices differing from the outer ones. Komarek does not mention inner couplers at all. However, the construction of detached logging trucks with inner coup-

ling devices of every conceivable type was a familiar practice, and the necessity for such couplers in order to haul the empty trucks in trains is self-evident. Komarek did not show the inner couplers because he claimed nothing new in that respect. He left himself free to adopt any one of the simple devices in common use, but he provided specifically for the raising of the front draw-bar and end frame, while he left on a lower plane the rear end frame, which would determine the height of the rear coupler. In this connection, see the uncontradicted testimony of Mr. Chriswell at page 88 of the Transcript. He says: "In the case of a logging truck there is no mode of construction feasible except to attach the draw-head to the truck itself, and it is the universal practice so to attach the draw-head; in the Komarek patent, which has a draw-bar high at one end and the frame lower at the other, the only feasible way if they were coupled together would be to attach the coupler to the frame which is lower; in a logging truck the lowering of the frame at one end would necessarily result in the lowering of the draw-head at the same end; no other mode of construction would be possible."

If the Chandler patent is valid, if would prevent Komarek or any user of his truck from adopting the necessary and obvious mechanical expedient of attaching an inner coupler to or at the height of his inner frame, and would force him either to lower his outer frame and coupler or to raise his inner frame and coupler to exactly the same height as the outer ones.

Chandler has done nothing but attach to the Komarek truck an ordinary coupler, by familiar means, and at the natural and obvious height.

The Bettendorf patent, Defendant's Exhibit "D" (Transcript, pp. 79-81), relates to car trucks, and not to logging trucks; but it has a very close analogy to logging trucks for two reasons. First, because it is intended particularly for use on cars having removable bodies, or bodies which can be tilted, so that the trucks correspond closely in function to logging trucks (see lines 9-13). Second, and as a result of the foregoing, the coupling apparatus is connected with the truck, instead of the body of the car. This point is brought out in the testimony of Chandler (Transcript, p. 61). He argues that there is no analogy between an ordinary car truck and a logging truck, because in the ordinary car the couplers are not attached to the trucks, but to the body of the car. The Bettendorf truck is therefore of the logging-truck type.

The Bettendorf truck embodies every idea contained in the Chandler truck. The outer coupler is elevated so as to connect with standard equipment, while the inner coupler, the rod "M," which holds the two trucks together when the body of the car is removed or loosened, lies at a much lower plane. It is obvious that the trucks must be used in pairs, and that the inner couplers are adapted only for the coupling of the two trucks of a pair. Chandler's ideas go no further. It is true that the sagging load in one case consists of logs, while in the other case it consists of a car body, but

there is no difference in principle, or in the fundamental ideas involved.

Mr. F. W. Chriswell, chief engineer for the Seattle Car & Foundry Company, testified that his company had for many years been building logging trucks having couplers of different heights, or adjustable to different heights. We quote his testimony, which contains a clear and concise description of various devices in common use which suggest and anticipate Chandler's alleged invention. He says (Transcript, pp. 85 to 87):

"I have been engaged in the construction of logging trucks, car trucks and cars about twenty-three years; we had built a number of cars for different logging concerns where they wished to couple the low trucks having couplers about twenty-six inches from the rail with those 34½ inches high; we built them for the Marysville & Northern, Marysville & Arlington, the Field Timber Company and one or two other concerns where one end of the car was built stereotype, and the other end with the coupler lower to couple with low trucks; we built these cars along in April and May, 1910; all of these trucks were built so they could raise and lower the draw-heads; but they were built that way in order to facilitate shipping; we shipped them out on their own wheels, and in order for them to move on their own wheels they had to have both ends standard height; then a coupler on one end was dropped after they were received; the skeleton logging trucks were of the same type with the adjustable draw-bars; we built one of those for the Marysville & Northern with a

standard height coupler; on that truck both ends were raised so that we could drop either pin, but they wanted it so they could couple their locomotive and train with the low trucks which they had, and we built that car with the draw-bars so they could drop them at either end; that was in April, 1910, if I am not mistaken; we built a car for the Hammond Lumber Company in a similar way; that was a flat-car built with the drawbars arranged to drop at one end for the purpose of coupling a standard locomotive with the low logging equipment; it is a common practice in passenger-car trucks to build the frames on the two ends of different heights; it is especially necessary in passenger-cars with the bellying sill, what they call the fish-belly sill; the body of the car would interfere with the inner end of the truck frame, consequently they offset that frame, lowering the inner end of the frame; there is no drawbar usually attached to the frame, though there is one truck or car, a streetcar used in New York City known as the hobble skirt, built in 1910, when the narrow skirts were in use; to get a very low car they built the truck with the forward end projecting out past the end of the car with a draw-bar located on the truck; it was not standard height, but it was higher than the inner end. The inner end was dropped down to clear the inner end of the car: that was a matter within my own observation; I believe you will find nearly all locomotive tenders with high draw-bars next to the engine and low where it couples with the train, that is to clear the firebox, and one thing and another on the tender; nearly all tenders, I believe, have high and low draw-bars; in the case of six wheeled trucks under heavy equipment steel

 cars the trucks are built with a low frame at one end to clear the fish-belly sill."

The attention of the witness was then called to certain illustrations in the Master Car Builders' Association Car Builders' Dictionary of the 1912 Edition, and the witness testified that this is a standard work in common use by car-builders, used by nearly all carbuilders and recognized as a standard reference book. The attention of the witness was called to a truck illustrated on page 562 and page 339, and the witness proceeded and testified as follows:

"This truck is a six-wheeled truck for a steel flatcar, the sills belly down here just as the logs would belly down; the frame of the truck is outside of the wheel the same as on a logging truck; this end does not interfere; Figure 348 is the truck which is used under that car; this line (indicating a line on said drawing) indicates the dropping of that frame; the frame of the truck is not shown on the figure; the drawing shows the frame of the car bottom coming up at an angle, and the end frame is dropped down while the other end is up at the position shown by the two end sills; on the high end it is up at the axle line; the frame of the truck comes above the axle line, say two or two and one-half inches; upon the end where the body bellies down the frame is dropped down to the bottom of the axle line so there is probably six or seven or eight inches difference on the frame to clear the belly of the sill; there is no drawbar on the truck: the draw-bars are located on the car body itself, and are of the same height at the two ends of the car; there are no draw-bars on the truck itself."

Chandler testifies (p. 57): "I do not claim there is any novelty in the idea of having one end of the frame of a truck or of a car higher than the other. I have never seen a *logging truck* having a frame on one end higher than the other." And again on the same page: "I have noticed the Brill trucks on the street cars that pass in front of this building; they use a smaller wheel on one end of the truck than they do on the other and the connecting frame is naturally lower on that end."

Illustrations from other kinds of machines and vehicles might be multiplied indefinitely. Plaintiffs and their attorney seek to distinguish these prior devices on vorious grounds, chiefly because most of the illustrations are taken from cars or car trucks, and not from detached logging trucks. These distinctions mark no difference in principle. The fundamental fact is that long before Chandler made his alleged invention, the one idea involved in it, namely, having one end of his truck and the corresponding draw-bar higher than the other end and draw-bar, was a device in familiar and common use in the business of building cars, car trucks and logging trucks.

When Chandler was informed by Van Cleve that sagging logs were striking the inner draw-bars of his trucks he must be assumed to have known the familiar practices of his own business. He was chargeable with knowledge that the raising and lowering of coupling devices and log bunks, and the attachment of those devices at various heights according to the needs of the occasion, was feasible and common. He was chargeable with knowledge that it was common practice to have

car trucks with one end lowered in order to make way for a sagging car body or other load, and that it was common practice to build cars and other like equipment with one coupler higher than the other, in order to meet various contingencies. He was chargeable with knowledge of the Komarek patent, which exhibits clearly a detached logging truck built for the hauling of long logs and having one end frame and draw-bar high and the other end frame low, necesarily implying a low drawbar. He was chargeable with knowledge of the Bettendorf patent, which exhibits a detached truck with a high outer coupler and an inner coupler placed much lower.

Chandler must also be held to have had and used the faculties of ordinary perception before he can be credited with the exercise of inventive genius. The problem which the circumstances created for him had limitations which were self-evident. The use of the trucks on a line having other equipment of standard height suggested and determined the height of the outer drawbars of each truck. Van Cleve's testimony on page 62 shows this clearly. There were, therefore, three moves possible, namely, to raise the log bunk, to lower the inner draw-bar, or to shorten the inner draw-bar. These alternatives are so simple and obvious that they could not fail to suggest themselves to any observer who gave the subject serious consideration. It is impossible that any one seeing an upper object striking a lower one should not conceive the idea of preventing the contact by lowering the lower object. In its essence, this is the whole scope of Chandler's alleged invention. He seeks to obscure the issue by talk of using the trucks in pairs. and by suggesting mechanical difficulties of construction; but as we shall show more fully, these things cannot help him. He claims a patent upon the broad general idea of having one draw-bar lower than the other; and if that idea in itself does not involve invention or patentable novelty, his claim is not given merit by these incidental difficulties in its application.

That true invention, as distinguished from mechanical or engineering skill, is requisite to the validity of a patent, and that the presence or absence of this element is a question for determination by the courts, are principles too well settled to require special citation of authorities. The cases distinguishing between invention and the exercises of reason and skill are so numerous that it is impossible to do more than choose a few for purposes of illustration. We believe the following will serve the purpose:

Reckendorfer v. Faber, 92 U. S. 347.

Dumbar v. Myers, 94 U. S. 187.

Atlantic Works v. Brady, 107 U. S. 192.

Slawson v. Grand St. R. R. Co., 107 U. S. 649.

Penn. Railroad v. Locomotive Truck Co., 110 U. S. 490.

Hollister v. Benedict Mfg. Co., 113 U. S. 59.

Preston v. Manard, 116 U. S. 661.

Aron v. Manhattan Ry. Co., 132 U. S. 84.

Mast, Foos & Co. v. Storer Mfg. Co., 20 Sup. Ct. Rep. 708.

Wills v. Scranton Cold Storage & Warehouse Co., 153 Fed. 181.

Star Hame Mfg. Co. v. United States Hame Co., 227 Fed. 876.

Hansen v. Slick, 230 Fed. 627.

Keene v. New Idea Spreader Co., 231 Fed. 701.

Marshall v. Wist, 232 Fed. 606.

Rauch & Lang Carriage Co. v. Hanlon, 233 Fed. 673.

In Dunbar v. Myers, the invention claimed was for the use of two projecting plates in conjunction with a saw for the purpose of holding the sawed edges away from the saw and preventing binding or friction. It appeared that there was already in common use a device consisting of one such plate, and it was held that no invention was involved in the mere use of two such plates, although of somewhat different form and arrangement. It is said, on page 197:

"Invention or discovery is the requirement which constitutes the foundation of the right to obtain a patent; and it was decided by this court, more than a quarter of a century ago, that unless more ingenuity and skill were required in making or applying the said improvement than are possessed by an ordinary mechanic acquainted with the business, there is an absence of that degree of skill and ingenuity which constitute the essential elements of every invention."

In the case of Atlantic Works v. Brady, the invention claimed was in adapting propellers such as are ordinarily used on steamboats to the work of dredging by stirring up the sediment at the bottom of a river so it would be carried away by the current. It appeared that ordinary steamer propellers had been used for this purpose, the steamer working backwards. It was held that there was no patentable invention or discovery involved in the obvious device of placing propellers at the front end of the boat when it was desired to operate in this way, nor in the mere lengthening of the propeller blades so as to accomplish the work more effectively. It is said, at page 199:

"The process of development in manufactures creates a constant demand for new appliances, which the skill of ordinary head-workmen and engineers is generally adequate to devise, and which, indeed, are the natural and proper outgrowth of such development. Each step forward prepares the way for the next, and each is usually taken by spontaneous trials and attempts in a hundred different places. To grant to a single party a monopoly of every slight advance made, except where the exercise of invention, somewhat above ordinary mechanical or engineering skill, is distinctly shown, is unjust in principle and injurious in its consequences."

In Slawson v. Grand St. R. R. Co., the patent covered an improvement in fare boxes such as are used in street cars. It is said, on page 654:

"The elements of the contrivance, namely, the fare-box, the headlight and the reflector, are all old. What is covered by the patent is simply the making of an aperture in the top of the fare-box and turning the rays of the head-lamp through it into the box by means of a reflector. In other words, it is the turning of rays of light where they are wanted by means of a reflector, and taking away an obstruction to their passage. The facts of general knowledge of which we take judicial notice teach us that devices similar to this are as old as the use of reflectors. The new application of them does not involve invention "

The case of Penn. Railroad v. Locomotive Truck Co., 110 U. S. 490; presents a very close analogy in principle to the present case. There the inventor had conceived the idea of using in connection with the pilot wheels of a locomotive a certain form of truck previously used for railway cars, and possessing manifest advantages in the combination of strength with freedom of movement. The inventor was able to advance every argument which is presented here in favor of Chandler, but with much greater force. He was the first to conceive the idea of using such trucks under a locomotive; it was, as Chandler says, a "radical de-

parture;" the locomotive required only one such truck, while ordinary cars required two, and there are other obvious differences in the relations of the truck to other parts of the mechanism, and difficulties in the working out of the idea. Nevertheless the Supreme Court held that the idea of using under a locomotive a type of truck previously used under cars did not involve invention. It is said on page 494:

"It is settled by many decisions of this court, which it is unnecessary to quote from or refer to in detail, that the application of an old process or machine to a similar or analogous subject, with no change in the manner of application, and no result substantially distinct in its nature, will not sustain a patent, even if the new form of result has not before been contemplated." Numerous authorities are cited.

The statements of the Supreme Court in denying patentability to the improvement involved in the case of Hollister v. Benedict Mfg. Co., 113 U. S. 59, seem peculiarly appropriate to the present case. It is said on page 73:

"As soon as the mischief became apparent, and the remedy was seriously and systematically studied by those competent to deal with the subject, the present regulation was promptly suggested and adopted, just as a skilled mechanic, witnessing

the performance of a machine, inadequate, by reason of some defect, to accomplish the object for which it had been designed, by the application of his common knowledge and experience, perceives the reason of the failure, and supplies what is obviously wanting. It is but the display of the expected skill of the calling, and involves only the exercise of the ordinary faculties of reasoning upon the materials supplied by a special knowledge, and the facility of manipulation which results from its habitual and intelligent practice; and is in no sense the creative work of that inventive faculty which it is the purpose of the Constitution and the patent laws to encourage and reward."

In Preston v. Manard, the inventor observed that ordinary hose reels were not large enough to allow water to flow through the hose when wound on the reel, so procured a patent covering reels large enough to allow such flow. The Supreme Court held (p. 664) that all of the parts of such enlarged reel were old and performed their usual function; that it was matter of common observation that water will flow through a hose not too much compressed or restricted; and that "to sustain this patent would be to deprive the public of the right to arrange and use a well known apparatus in the only way in which its purpose can be beneficially accomplished."

In the case of Aron v. Manhattan Railway Co., the plaintiff claimed a patent upon a device by which the gates of street cars could be opened by levers. The patentable feature of the claim consisted in such an adjustment of the appliances that the gates of two adjoining cars could be opened at the same time by an operator standing on the platform. It appeared that appliances, which were the same in all substantial points, were in previous use for opening one gate at a time, and it was held that there was no patentable invention or discovery in the mere location of the levers at a different place so they could be operated more conveniently. It is said, on page 90:

"The patentee is entitled to the merit of being the first to conceive of the convenience and utility of a gate opening and closing mechanism which could be operated efficiently by an attendant in the new situation. His right to a patent, however, must rest upon the novelty of the means he contrives to carry his idea into practical application. It rarely happens that old instrumentalities are so perfectly adapted for a use for which they were not originally intended as not to require any alteration or modification. If these changes involve only the exercise of ordinary mechanical skill, they do not sanction the patent; and, in most of the adjudged cases where it has been held that the application of old devices to a new use was not patentable, there were changes of form, proportion, or organization of this character which were necessary to accommodate them to the new occasion. The present case falls within this category."

In Mast, Foos & Co., v. Storer Mfg. Co., the patent covered a wind-mill having a device for converting rotary motion into reciprocal motion. The device itself was old, but the particular use made of it in the wind-mill was new. It is said (20 Sup. Ct. Rep., p. 711):

"Having all these various devices before him, and whatever the facts may have been, he is chargeable with a knowledge of all pre-existing devices, did it involve an exercise of the inventive faculty to employ this same combination in a wind-mill for the purpose of converting a rotary into a reciprocating motion? We are of the opinion it did not."

And on page 712:

"He invented no new device; he used it for no new purpose; he aplied it to no new machine. All he did was to apply it to a new purpose in a machine where it had not before been used for that purpose. The result may have added to the efficiency and popularity of the earlier device, although to what extent is open to very considerable doubt. In our opinion this trans-

fer does not rise to the dignity of invention."

In Wills v. Scranton Cold Storage & Warehouse Company, the patent covered an alleged improvement in the construction of elevators in cold storage plants. It appears that by reason of the entrance of currents of warm air from the elevator shaft when the elevator was being operated, it was necessary to shut off the elevator shaft at each floor from the storage room by means of ante-rooms which could be closed at each side by doors. The patentee in this case conceived the idea of avoiding the necessity for these ante-rooms by the device of attaching rubber flanges or flaps to fill up the space between the floor of the elevator and the elevator shaft, thus cutting off the air current. It was held that this device did not involve any patentable invention. It is said, on page 183:

"When the difficulty to be overcome is so obvious a one, as the escape or entrance of air through the open spaces between the elevator car and the shaft through which it travels, into the rooms communicating therewith, it is hard to conceive what invention there can be in making air-tight those open spaces by bridging them with rubber flaps, or any of the other well-known devices for such purposes. It would seem that the conception or thought of doing so, was as obvious as the means employed. To put weather strips on a window or door to prevent the

ingress of cold air or the escape of warm air, does not involve invention, any more in the thought than in the means employed."

In Star Hame Mfg. Co. v. United States Hame Co., it is said (227 Fed., p. 883):

"The most, then, that can rightfully be said of the combinations stated in the claims in suit is that they are but a mere carrying forward of the original thought, a change in form, an improvement in degree, without substantial change in either means or result. This was not enough; it was not invention." Numerous authorities are cited.

In the case of Hansen v. Slick, the patentee claimed an invention for renewing by a pressing process the worn steel wheels of railway cars. Substantially the same process was already in use for pressing new wheels out of metal blocks. It was held that the adaptation of the old process to this analogous use was not invention; and it is said (230 Fed., p. 632):

"Did this change involve invention? The question of invention is a relative one and is to be considered, not as an abstract theory, but as a concrete, practical question in a particular art. Modern conditions have made high engineering and mechanical skill ordinary incidents in

many industries, and such technical skill is to be regarded as the incidental advance of commercial pursuits. It follows therefore that such advance in the art as results from this skill the public is entitled to avail itself of as a fruit of mechanical growth and advance. In such highly developed broad arts it is not everything that is beyond mechanical work that is to be deemed invention; but the general public, for whose benefit the patent system was created, are also entitled to the benefit of those who are skilled in such art. "Invention" is what rises to a higher plane than skill, both engineering and mechanical. It will therefore be seen that when it comes to a question of monopolizing for 17 years the fitting of worn car wheels to further use, such monopoly should be restricted to such novel acts as are beyond the sphere of skilled engineering and mechanical steps in such art. Moreover, we must not lose sight of the fact that one of the usual way marks of invention is that it generally follows futile efforts of those skilled in an art to solve some recognized difficulties. Substantial advance, marked improvement, progressive steps in an art, however beneficial, are not in themselves evidence of invention. They are to be expected, and, as the art progresses, more engineering skill, more mechanical progress, but less invention, are naturally to be looked for. It is when skill and progress stop abreast of an obstacle that inventive genius intervenes and invents."

In Keene v. New Idea Spreader Co., it is said (231 Fed., p. 709):

"True, prior art becomes at times a source of confusion and even abuse. Still, to insist that claims disclose invention or discovery where their substantial equivalency in elements, in mode of operation and results, plainly appear in two or more earlier patents or publications, though not all in one patent or publication, is to ignore the very terms of the patent act. Above all, counsel's theory is opposed to the settled course of judicial decision. As was said, in holding a claim to be void for want of invention, in Dilg. v. George Borgfeldt & Co., 189 Fed. 588, 590, 110 C. C. A. 568, 570 (C. C. A. 2d Cir.):

"* * * Although all the elements of the claim may not be found in any one patent, it is clear that they are all to be found in different patents. No single patent may anticipate, but they all have a bearing upon the question whether invention or mechanical skill was involved or required." Again, in Duer v. Corbin Cabinet Lock Co., 149 U. S. 216, at 222, 13 Sup. Ct. 850, at 853 (37 L. Ed. 707), when affirming a decree dismissing the bill in a patent suit, Mr. Justice Brown said:

'In view of the advance that had been made by prior inventors, it is difficult to see wherein Orum displayed anything more than the usual skill of a mechanic in the execution of his device. All that he claims as invention is found in one or more of the prior patents.'

And further (149 U. S. 223, 13 Sup. Ct. 853 [37 L. Ed. 707]):

'In view of the fact that Mr. Orum had no actual knowledge of the Gory patent, he may rightfully claim the quality of invention in the conception of his own device, but as he is deemed in a legal point of view to have had this and all other prior patents before him, his title to invention rests upon modifications of these, too trivial to be the subject of serious consideration.'"

In Rauch & Lang Carriage Co. v. Hanlon, the patent covered the use in front of street-cars windows

or closed automobiles of the ordinary swinging windshields commonly found on open automobiles. It is said (233 Fed., p. 675):

"Analyzing the advance made by Hanlon, we see that, from one point of view, when the user of the open car found that if he had the upper part of the wind shield swung out, the storm beat in under it because this adjustment left an opening through which rain and snow could get in, he put in a pane of glass or a window, fixed or sliding, to close the opening and keep the storm out. From the other point of view, when the user of the closed car observed that the front window, when shut, would become blurred with rain or snow, he added the projecting, swinging shield or visor found in the open car, and so insured a line of clear vision through the inner glass. From neither point of view can we see invention. To put a glass in an opening, or to shelter an existing glass window by the same means common for sheltering an existing open window, seems obviously within the intelligence of the ordinary person—to say nothing of one who is 'skilled in the art.' Each is, at the best, as applied to closed automobile bodies, only a new use of an existing structure, not requiring mechanical adaptation, save in the form or shape of the supporting hinges or guides—indeed, no mechanical adaptation whatever is necessary, unless it happens that the two places of application are of different size or shape. See illustrative double use cases collected in note to Weir Frog Co. v. Porter, 206 Fed. 670, 674, 124 C. C. A. 470.

The absence of invention is emphasized by the fact that when the patentee lowers his sliding window in his street car vestibule, as he does in pleasant weather, his structure no longer embodies his patented structure, because he has no closed glass window protected by swinging glass in front. When the question of infringement depends upon opening or closing a window it is not easy to understand how the patent can be the embodiment of an inventive step."

In most of the foregoing cases, the patent rejected for want of invention presented higher claims for consideration than can be found in the Chandler patent, because in them there was generally a new use of old devices, or some slight change of an old device, while the Chandler patent has not even those merits. He claims a patent upon the bare idea of putting a drawbar low enough so that it will not strike the normal load on the truck. He claims to have invented the thought that a draw-bar which strikes the load ought to be

lowered so that it will not strike the load. In his truck, no part is new. He makes absolutely no claim of novelty in the construction, attachment or operation of any part. His wheels, frame, bunk and draw-bars are precisely those in familiar use, and they perform exactly the same functions which those parts always performed. His draw-bars are constructed and attached in the ordinary way, and his high draw-bar serves the familiar purpose of coupling loaded pairs of trucks together or to other equipment, while the low draw-bar performs the equally familiar service of coupling the pairs of empty trucks to one another. It has no other function, and no peculiarity of construction, attachment or operation, either in itself or in connection with other parts.

The District Court appears to have been impressed by the fact that it required some study for Chandler to determine whether a car of this type would be feasible or not, and to work out the mechanical details of construction. We cannot see how these difficulties add to the merit of his claim. If in working out the details of construction Chandler had been called upon to invent any new device, he could and would have patented that device. The fact that he makes no claim of that kind is sufficient evidence that the mode of construction adopted contains nothing novel. An idea which does not involve invention is certainly not made patentable because its working out into a practical machine requires some study.

The same answer applies to the suggestion that the icasibility of this truck required careful consideration.

Doubtless it did. Perhaps Chandler weighed carefully the relative merits of the three obvious methods by which the striking of these long logs against the inner draw-bars of his trucks might be avoided, namely, the raising of the log bunk, the lowering of the interfering draw-bar, and the shortening of that draw-bar. Perhaps in considering those things he brought to bear a considerable measure of skill which his experience in the business had given him. It may be that he arrived at a wise choice. But these things are not invention. To choose wisely one of three obvious alternatives is not invention, even though the choice requires skill and study. This is illustrated abundantly by the authorities. We understand that the District Court regarded the making of this choice as evidencing something more than ordinary mechanical skill. Suppose that it evidenced high mechanical skill, or even engineering skill, the result is the same. The cases cited by us show that the "expected skill of the calling" extends into the higher realms of engineering and expert service.

What Chandler claims a patent upon is the broad idea of having one draw-bar lower than the other. If he has invented or discovered anything, it is that idea of conception. It is wholly immaterial how much skill was necessary to determine whether that idea was better or worse than some other idea. He is not claiming a patent upon any result of his supposed deep and skillful inquiries, but upon the broad and obvious conception which must have preceded those inquiries.

One other point remains upon which the issue has been obscured and confused. This is the reference to

the use of trucks in pairs. It seems to be thought that it is a point of singular merit, that Chandler conceived the idea of using these trucks in pairs. That detached logging trucks must be used in pairs is self-evident. Does it require inventive genius to discover that the high draw-bars of two trucks will meet and couple, and that the corresponding low draw-bars will likewise meet and couple? It is one of the most obvious of facts. A child six years old would soon discover that a train could be made up in this way, and the ordinary adult would see it at the first glance. If any suggestion were needed, it would be supplied in abundance by the Komarek truck, the Bettendorf truck, the Brill truck, and the numerous other trucks anl cars so constructed as to be used only in pairs.

That Chandler knew this truck was not patentable is shown by his own admissions. In his letter to Mr. Kerry, dated November 17, 1914, appearing as Plaintiff's Exhibit 3, at page 53 of the Transcript, Chandler says:

"We note that you want the draw-bar to be of standard height, that is, $34\frac{1}{2}$ inches from top of rail to center of drawbar. In this connection, would say that Clark & Wilson found that where they used the standard height coupler on their trucks and hauled very long logs the logs bellied down and interfered with the inside coupler, and they told us that if they ordered any more trucks they would want

us to furnish them a truck having the outside couplers of standard height and the inside couplers 10 inches lower. I am making a sketch to explain more fully the point that I am trying to bring out, and if after thinking this over you decide that you would like to have us send you a set of trucks in which the couplers are of different heights, we would be glad to do it.

As long as you are getting three different types of truck, it might be a good idea to embody as many ideas as you could in the three sets and then make up your own design from the three and let everybody bid on them, as all of the manufacturers can build any type of truck which you desire."

He describes this truck, and tells Mr. Kerry that any manufacturer can build it; then three months later, after the Seattle Car & Foundry Company has outbid him, and Mr. Kerry, taking him at his word, has ordered the trucks from that company, he applies for a patent. He is now claiming an injunction and damages on account of the use of the very trucks upon which he thus invited competition. Besides, he does not even claim credit for the device, but ascribes it to Clark & Wilson.

Turning now to the question whether Chandler conceived the idea covered by his patent or borrowed it from Withrow, we find some conflict in the evidence, but the preponderance is altogether against Chandler, and under the circumstances the foregoing letter appears to turn the scale conclusively.

The deposition of J. R. Van Cleve (Transcript, pp. 61-63), is to the effect that as an employee of the Northwestern Equipment Company he called several times on the Clark & Wilson Lumber Company; that this company had been handling logs in flat cars having couplers of standard height, and this made it necessary to have their detached trucks furnished with couplers of standard height, so as to couple with the flat cars; that this standard height coupler is about a foot higher than the coupler on the ordinary logging truck; that Clark & Wilson were handling very long logs, and reported that these logs sagged and struck the inside couplers and caused trouble; that he reported this trouble to Chandler, and later reported to Clark & Wilson that Chandler had developed a truck with one high coupler and one low; that Clark & Wilson said, "If you people can furnish that kind of a logging truck, that is the kind we want." Van Cleve gives no definite dates.

The testimony of Chandler, appearing on pages 47, 56 and 108 of the Transcript, shows that this question of affording clearance for sagging logs was first brought to his attention by Van Cleve, and he says that the idea of lowering the inner draw-bar did not occur to him for at least thirty or forty days after Van Cleve reported the difficulty to him.

Ira L. Withrow testified (Transcript, p. 63) that he was superintendent for Clark & Wilson; that in the spring of 1914 they were hauling long logs, and had trouble because the logs interfered with the inner drawbars; that he had a talk with Van Cleve about it. Withrow says (p. 64):

"He was there one day and we were having trouble with the trucks, and I told him he would have to do something and that the proper way to do would be to drop the draw-bars, and he said that as we had the standard coupler flat-cars on the outside—he looked it over and thought it would be a good idea. At first he thought it would not do because if we set out one of them we would have to set out the pair; I explained to him that this made no difference as they all had to go in pairs anyway; he said he thought that would be a good idea: this was in the early part of 1914, sometime in the Spring; I would not say just when; it was during one of his trips down there; it is not true that I complained to Mr. Van Cleve without suggesting any remedy or that Mr. Van Cleve came and told me about this idea after reporting to Mr. Chandler and having him study the question; I told Mr. Van Cleve."

And again on page 65:

"I suggested this idea to Mr. Van Cleve—this idea of the high and low draw-bar;

I thought it was practical construction; I suggested the same thing to Mr. Vachon of the Seattle Car Company; I never made any sketches of it; I just told him it could be done; we were looking at the trucks one day there—there was no way decided on how it should be done; I am quite positive that that idea came from me, and I suggested it to Mr. Van Cleve; I suggested to Mr. Van Cleve the difficulty that was being experienced and also that the draw-bar should be dropped; we said that we wouldn't buy any more unless this was done; that we would order no more trucks without the inside draw-bar being lowered."

His testimony on page 67 shows that Clark & Wilson commenced hauling these long logs ten days or two weeks after February 9th, 1914, and that Van Cleve came down soon afterward. This would, in all probability, make the date of Van Cleve's visit not earlier than February 25th.

E. V. Vachon, an employee of the Seattle Car & Foundry Company, testifies as follows (Transcript, pp. 104, 105):

"I remember an occasion when this question of the interference of long logs with the inside draw-bars of detached trucks and the mode of overcoming that objection was discussed by Mr. Chriswell

and Mr. Withrow in my presence; I don't remember the exact date, but it was in the early part of 1914, and we were at the camps of the Clark & Wilson Lumber Company, Mr. Withrow being the superintendent, and were talking with him about the difficulties experienced with long logs in the clearance of the inside equipments; I don't remember just the conversation, but the substance of it was that some arrangement should be made to provide for that, and the practical way seemed to lower the couplers on the inside so that they would not interfere, causing accidents or anything of that kind."

On cross examination the witness testified as follows:

"Mr. Withrow suggested that this lowering of the couplers on the inside was the practical way; I do not remember his exact words; it was just to the effect that the coupler should be lowered at the inside to take care of that; he thought that was the practical way of obviating the difficulty; this was in the early part of 1914."

F. W. Chriswell, chief engineer of the Seattle Car & Foundry Company, testifies as follows (Transcript, p. 81):

"March 16, 1914, I was at the camp of the Clark & Wilson Company with Mr. Vachon and Mr. W. W. Clark. We met Mr. Withrow there and they had various trucks in service, the Northwestern, our trucks, and the Russell trucks, and we were discussing the merits of the trucks and Mr. Withrow called attention to the fact that the sagging of the logs interfered with the coupling, and said in order to make them serviceable for hauling long logs the inner draw-bar would have to be lowered; he offered no suggestion how it could be done, just said it should be lowered, asked me if it could be done and I told him it could."

And again on page 91:

"Mr. Withrow discussed with me the question of building these logging trucks with high and low draw-bars; I am absolutely positive that he suggested to me the idea of lowering the inner draw-bar."

We therefore have not only the direct and positive statement of Withrow that he suggested the lowering of the inner draw-bars to Van Cleve, but the testimony of two witnesses that Withrow made the same suggestion to them before he could possibly have received it from Chandler through Van Cleve. There is nothing in Van Cleve's deposition to the contrary. Withrow says he told Van Cleve they would not give any more

orders for these trucks without the low draw-bar. Van Cleve says he told Withrow that Chandler had developed a truck with one high coupler and one low, and that Withrow answered, "If you people can furnish that kind of a logging truck, that is the kind we want." All of this confirms the statement of Withrow that he suggested the idea, and that the only question was as to the feasibility of making a truck which would embody the idea.

Finally, Chandler says in his letter of November 17, 1914 (Transcript, p. 53):

"Clark & Wilson told us * * * that if they ordered any more trucks they would want us to furnish them a truck having the outside couplers of standard height and the inside couplers ten inches lower."

He does not say he has invented a novel form of truck to meet difficulties encountered by Clark & Wilson; he says Clark & Wilson told him the kind of truck they wanted. He goes on to say that "all of the manufacturers can build any type of truck which you desire." If Chandler really thought he had invented this type of truck, and had an exclusive right to sell it, he would have mentioned that fact, instead of inviting competition.

Withrow, who is not a skilled mechanic, hauled long logs for ten days or two weeks on the high trucks, noticed the interference of the logs with the inner drawbars, and perceived imediately that the trouble could

be remedied by lowering the inner draw-bars. We maintain that this is an obvious fact which any sensible man would perceive. Chandler has common sense, and claims mechanical and professional skill. He must be assumed to have brought those faculties to bear upon the problem presented to him. He must be assumed to know the form and mode of construction of the various trucks in use, and of their parts, and to be familiar with the adjustments and expedients which belong to his business. Considering the extremely simple and obvious nature of the fundamental idea involved, the narrow limits which the nature of the case fixed for the exercise even of judgment or choice, the several prior devices embodying the idea in substantial entirety and the numerous devices suggesting it in principle, and bearing in mind the fact that the difficulty to be solved, with its attendant circumstances, pointed to and virtually demanded the precise remedy aplied, we submit that the total lack of invention or patentable novelty is clear.

Further, whatever merit attaches to this idea belongs to Withrow, and not to these plaintiffs. There may be some question whether Withrow's suggestion was communicated by Van Cleve to Chandler; but there is no question that Withrow conceived the idea and suggested it to Van Cleve, the agent of plaintiffs.

Respectfully submitted,

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